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COMMONWEALTH OF AUSTRALIA

"Patents Act 1952-1959"

501,652

COMPLETE APPLICATION FOR A PATENT

ROVER MOWERS (AUST.) PTY. LTD.,

For further information see Note (a)

18709/76.

18709/76

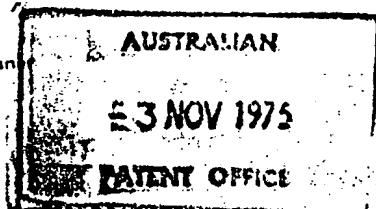
(b) Where permanent or temporary address of applicant
is not given above
155 Fison Avenue, Eagle Farm, Brisbane, Queensland,
4007, Commonwealth of Australia(c) Inventor (date of invention)
hereby apply for the grant of a Patent for an invention entitled (c): A BLADE ASSEMBLYwhich is described in the accompanying ~~provisional~~ specification.My address for service is: C/o Arthur S. Cave & Co., Patent Attorneys, 1 Alfred Street, Sydney,
2000, in the State of New South Wales, Commonwealth of Australia.RECEIVED
DRAFTED this 30th day of OCTOBER, 1975.

Recd by
Date 3/11/75
Recd by
CC 3810
Application ✓
Declaration ✓
Specification 35c
Drawings -

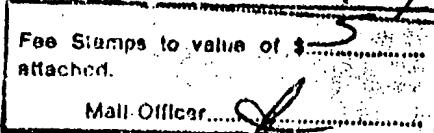
ROVER MOWERS (AUST.) PTY. LTD.

By Their Patent Attorneys,
ARTHUR S. CAVE & CO.,

G. F. Chodziesniak

APPLICATION ACCEPTED AND AMENDMENTS
ALLOWEDFee Stamps to value of \$
attached.

Mail Officer





(12) PATENT SPECIFICATION
ABRIDGEMENT
(19) AU

(21)	18709/76	501,652	(22) 3.11.75
(23)	14.10.76		(24) 3.11.75
(43)	20.4.78		(44) 28.6.79
(51) ²	A01D 55/18 A01D 35/26		
(54)	MOWER BLADE ASSEMBLY		
(71)	ROVER MOWERS (AUST.) PTY. LTD.		
(72)	GREEN, D.F.		
(74)	CA		
(56)	37228/71 32.21		
	36901/68 32.21		
	9399/66 427123 32.21 32.3		
(57)	CLAIM 1. A blade assembly comprising a flanged bearing sleeve, a plurality of blades removably mounted on said sleeve between said flange and a clamping plate removably mounted on said sleeve at the end of the sleeve remote from said flange, the blades projecting perpendicular to the sleeve and being spaced from each other by collars positioned between each blade, said blades being secured to said flange by first studs passing through the clamping plate, blades, collars and flange, said blades being additionally secured together by studs which do not pass through the clamping plate or flange and said sleeve incorporating means whereby the assembly is attached to a power output shaft.		

AUSTRALIA

Form 10

PATENTS ACT 1952-1973

COMPLETE SPECIFICATION

(ORIGINAL)

FOR OFFICE USE

1870978

Class

Int. Class

Application Number:
Lodged:

Complete Specification Lodged:
Accepted:
Published:

Priority:

Related Art:

This document contains the
amendments made under
Section 49.

and is correct for printing.
8 JUN 1979

TO BE COMPLETED BY APPLICANT

Name of Applicant: ROVER MOWERS (AUST.) PTY. LTD.

Address of Applicant: 155 Fison Avenue, Eagle Farm, Brisbane,
Queensland, 4007, Commonwealth of Australia.

Actual Inventor: DOUGLAS FLINDERS GREEN

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N.S.W. 2000 Australia

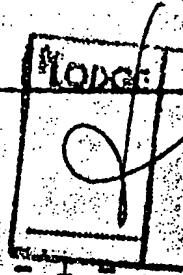
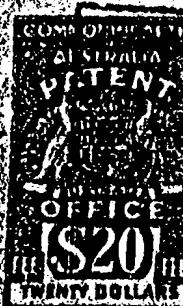
Complete Specification for the invention entitled

"A Blade Assembly"

501,652

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MAILED OFFICE	

The following statement is a full description of this invention,
including the best method of performing it known to me:-



The present invention relates to a blade assembly and more particularly to a blade assembly for use with shredding machines of the type described in our co-pending application for Patent No. 19127/76.

It is to be clearly understood however that the blade assembly is not limited to such a machine and the blade assembly of the invention finds application in conventional grass-cutting machines and the like.

Material fed to shredding machines is frequently bulky and hard. In consequence the blades of such machines are subjected to very high impact loads with consequent high rate of wear.

Because of such factors, the blade assemblies used must be of robust construction and must be so constructed that the assembly can be easily and quickly dismounted and taken apart for the repair and replacement of worn parts.

The object of the present invention is to provide a blade assembly which fulfils the aforementioned requirements and which is easily and simply made of inexpensive materials.

A blade assembly comprising a flanged bearing sleeve, a plurality of blades removably mounted on said sleeve between said flange and a clamping plate removably mounted on said sleeve at the end of the sleeve remote from said flange, the blades projecting perpendicular to the sleeve and being spaced from each other by collars positioned between each blade, said blades being secured to said

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flange by first studs passing through the clamping plate, blades, collars and flange, said blades being additionally secured together by studs which do not pass through the clamping plate or flange and said sleeve incorporating means whereby the assembly is attached to a power output shaft.

The invention will now be described with reference to one embodiment thereof in which

FIG. 1 is a side view of the blade assembly;

FIG. 2 is a plan view of the assembly on line 2-2
of FIG. 1;

FIG. 3 is a sectional view on line 3-3 of FIG. 1 and,

FIG. 4 is a sectional view on line 4-4 of FIG. 1.

5 Referring now to the drawings, the blade assembly
comprises a flanged bearing sleeve designated generally by
the reference 1 consisting of a sleeve 2 and a rectangular
plate 3, the plate is provided with a bore 4, the sleeve
3 passes through the bore 4 and is secured to the sleeve
as by welding. The sleeve is provided with an axial bore
5 which includes a keyway 5a whereby the sleeve is fixed to
the output shaft (not shown) by a key (not shown) engaging
in a corresponding keyway (not shown) in a motor output shaft.
10 The plate 3 is provided with diametrically opposed holes 6
on either side of the bore 4.

15 A blade arrangement comprising three blades, spacer mem-
bers, a clamping plate and securing studs is mounted on the
sleeve 1 in the manner hereafter described. Each blade
7 is provided with a central bore 8 slightly in larger
diameter than the diameter of sleeve 2 and in addition has
20 two diametrically opposed holes 9 and 10 on each side of the
bore 8. When the blades are mounted on the sleeve 2 the
holes 9 register with the holes 6, and the holes 10 on
25 each side of the bore 8 are also in register.

25 The blades are mounted on the sleeve 2 and separated
from each other by spacer collars 11 and 12. The blade
assembly just described is secured to the flanged sleeve 1

5 by a clamping plate 13 provided with central bore 14 and holes 15 are located on either side of the bore 14 register with holes 9.

10 Studs 16 pass through the holes 15, 9 and 6 and the collars 12 secured in position by nuts 17 screwed to the threaded ends thereof. Additional studs 18 passing through the holes 10 and collar 11 are secured by nuts 19 screwed on to the threaded ends thereof.

15 A stud 20 passing through the bore 5 and collar 21 is screwed into a bore in the motor output shaft (not shown) to secure the blade assembly to the mower output shaft.

20 The opposed edges of the blades 7 are provided with cutting edges as at 22 to facilitate the cutting of material fed to the blades.

25 Although the invention has been described with reference to a blade assembly incorporating three blades it will be appreciated that other numbers of blades may be used and assembled in the manner as already described.

30 It will be apparent that the assembly just described provides a simple, inexpensive, efficient and reliable blade assembly which achieves the objects of the present invention.

The Claims defining the invention are as follows:

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1. A blade assembly comprising a flanged bearing sleeve, a plurality of blades removably mounted on said sleeve between said flange and a clamping plate removably mounted on said sleeve at the end of the sleeve remote from said flange, the blades projecting perpendicular to the sleeve and being spaced from each other by collars positioned between each blade, said blades being secured to said flange by first studs passing through the clamping plate, blades, collars and flange, said blades being additionally secured together by studs which do not pass through the clamping plate or flange and said sleeve incorporating means whereby the assembly is attached to a power output shaft.
2. A blade assembly substantially as hereinbefore described with reference to the accompanying drawings.

DATED this 13th day of October, 1976.

ROVER MOWERS (AUST.) PTY. LTD.,
By Its Patent Attorneys
ARTHUR S. CAVE & CO.

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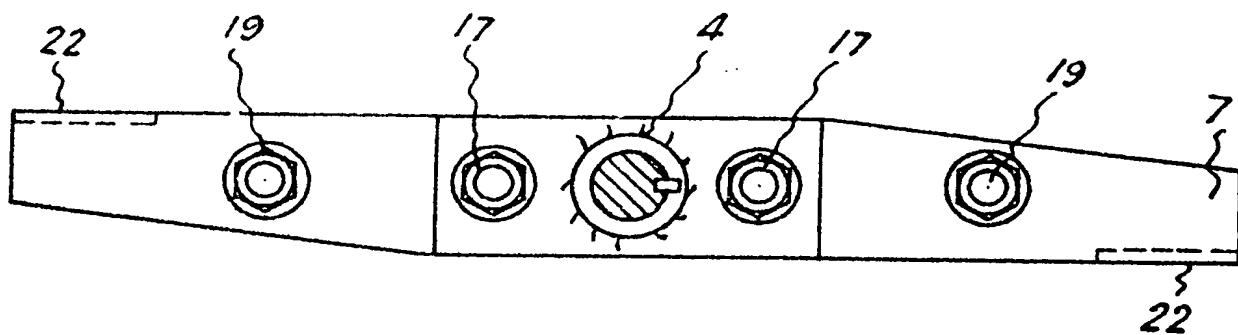
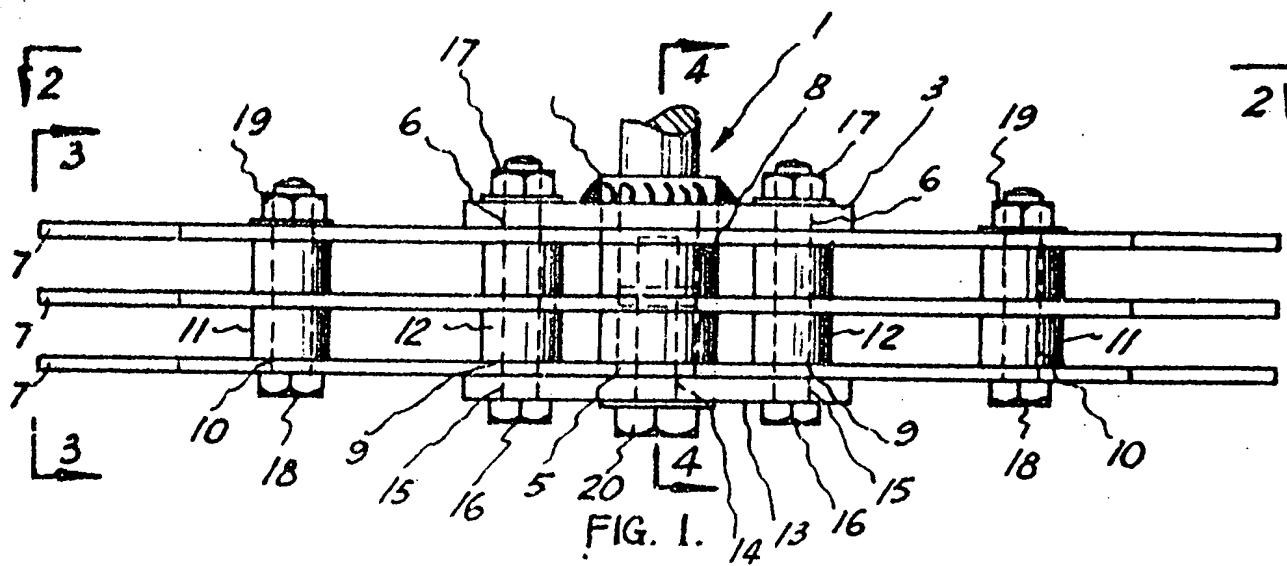


FIG. 2.

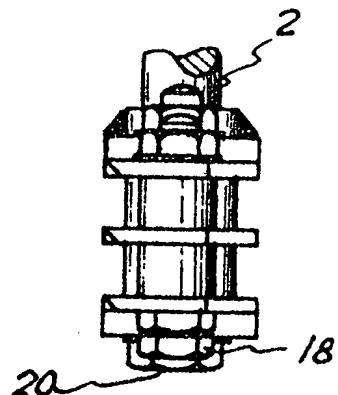


FIG. 3.

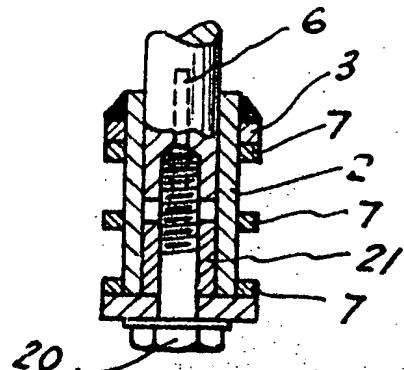


FIG. 4.